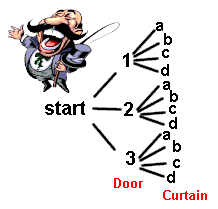
**Create a tree diagram to model each scenario:**

1) You are at a carnival.  One of the carnival games asks you to pick a curtain and then pick a door behind the curtain.  There are 3 curtains and 4 doors behind each door.  (Think- what event happens first?)

Tree Diagram:

a) How many choices are possible for the player?

b) What’s the probability of picking door A?

c) What’s the probability of the prize is behind curtain 1 and door d?



2) There are 3 trails leading to Camp A from your **starting** **position**.  There are 3 trails from Camp A to Camp B.  (Think- what event happens first?)

Tree Diagram:

a) How many different routes are there from the starting position to Camp B?

3) There are two identical mason jars.  One jar contains 4 green peppers and 3 red pepper.  The other contains 6 red peppers.  A jar is selected at random and a single pepper is drawn for a recipe.  (Think- what event happens first?)

Tree Diagram:

What is the probability that the pepper is red?

What is the probability we choose jar 1 and a green pepper?

**Practice:**

**1)** Jody has four bottles of soft drink – one bottle of cola, one of root

beer, one of ginger ale, and one of orange. She chooses three of these bottles to

take to a party and packing the ginger ale first. Starting with ginger ale as her first choice, create a tree diagram to illustrate her options for the second and third choices.

a) What’s the probability that Jody takes orange soda to the party?

b) What’s the probability that Jody takes root beer AND ginger ale to the party?

**2)** Adam’s class set up a lottery with two-digit numbers. The first digit is a number

from 1 to 4. The second digit is a number from 3 to 8. Draw a tree diagram to

answer each question.

A) What is the probability that 44 was the winning number?

b) What is the probability that a number with a 2 in it wins?

3) The letters that form the MISSISSIPPI are placed in a bowl. What is the probability of choosing a vowel, replacing it and then drawing a P?

4) Wawa has 3 bags left of cool ranch Doritos, 6 nacho cheese, and 5 Spicy Chili bags. You want to buy 2 bags for a party.

a)What’s the probability you choose a bag of nacho cheese and a bag of spicy chili without replacement?

b) What’s the probability you choose a bag of nacho cheese and another bag of nacho cheese without replacement?